

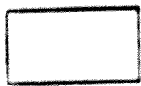

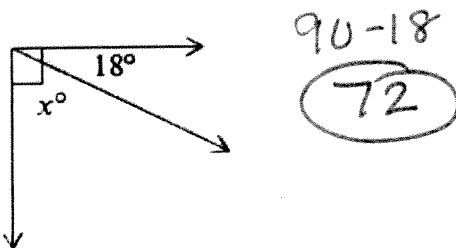


Key

1. Ben draws a quadrilateral that has only one pair of parallel sides. Which quadrilateral could be the one that Ben drew?

- A. 
- B. 
- C. 
- D. 

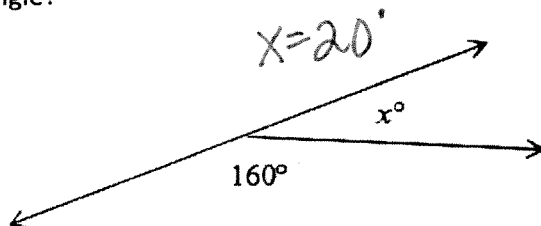
2. What is the measure of the missing angle?



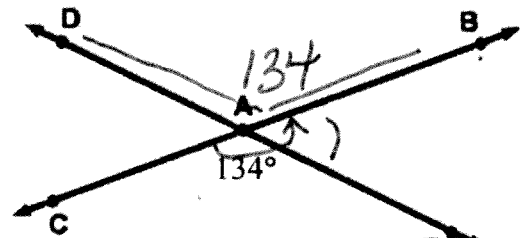
3. A rectangle is a quadrilateral with exactly-

- ☒ A. One pair of congruent sides
- ☒ B. One pair of parallel sides
- ☒ C. Four congruent sides
- ☐ D. Two pairs of congruent sides

4. What is the measurement of the missing angle?



Use the diagram below for questions 5 & 6.



5. What is the measure of $\angle DAB$?

134°

6. What is the measure of $\angle BAE$?

$180 - 134 = 46$

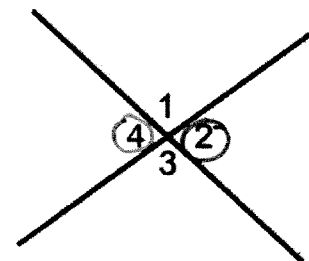
7. Which list describes all of the correct ways that a parallelogram can be classified?

- ☒ A. Quadrilateral, rectangle, rhombus
- ☒ B. Quadrilateral, ~~trapezoid~~
- ☒ C. Quadrilateral, square, rectangle, rhombus
- ☐ D. Quadrilateral

8. Which statement is NOT true? *False*

- A. All squares are rhombuses. *T*
- B. All parallelograms are quadrilaterals. *T*
- ☒ C. All rectangles are squares. *F*
- ☒ D. All trapezoids are ~~parallelograms~~ *quadrilaterals*. *F*

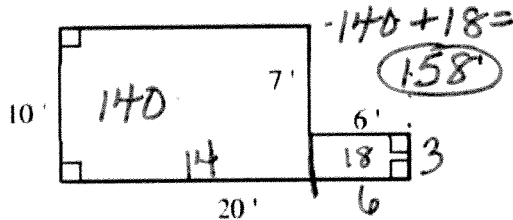
9. Describe the relationship between $\angle 4$ and $\angle 2$.



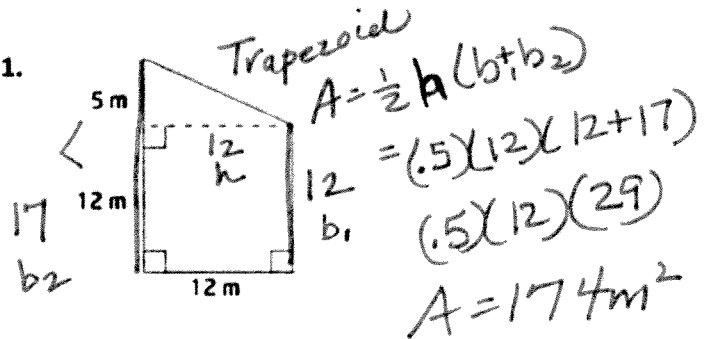
Vertical Angles

For questions 10 and 11, find the area of the complex figure.

10.



11.



WORK SPACE:

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12. Write Volume or Surface Area by each example:

Filling a fish tank with water. ✓

How much aluminum needed to make a can. SA

How much sauce a bowl can hold. ✓

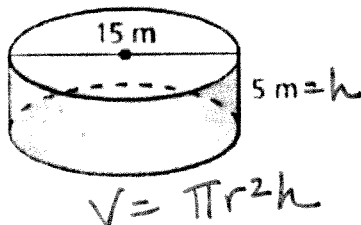
Wrapping a Birthday gift. SA

How many pennies fit into a jar. ✓

Icing a birthday cake. SA

13. Which could be used to find the volume of the cylinder shown to the left?

$$r = 7.5$$



$$\pi(15)^2(5)$$

$$\pi(7.5)^2(5)$$

$$\pi(5)^2(15)$$

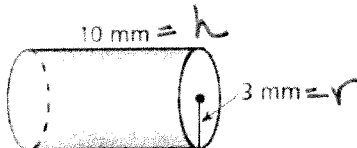
$$2\pi(7.5)^2 + 2\pi(7.5)(5)$$

SA

$$2\pi(15)^2 + 2\pi(15)(5)$$

SA

14. Find the Surface Area. $SA = 2\pi r^2 + 2\pi rh$
 $56.52 + 188.4$



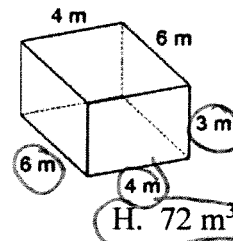
A) $282.6mm^2$

B) $244.92mm^2$

C) $188.4mm^2$

D) $56.52mm^2$

15. Find the Volume.



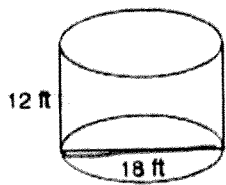
F. $128.2m^3$

G. $144m^3$

H. $72m^3$

J. $64.1m^3$

16. Find the Volume: $V = \pi r^2 h$



A) $12,208.32 \text{ ft}^3$

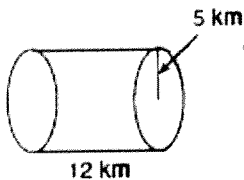
B) 339.12 ft^3

C) 678.24 ft^3

D) $3,052.08 \text{ ft}^3$

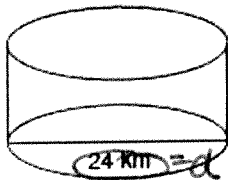
17. Which cylinder below has the greatest volume capacity? Find Volume of Each

A)



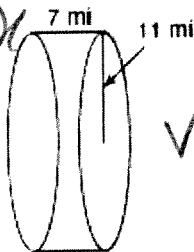
$V = 942$

B)



$V = 4973.76$

C)



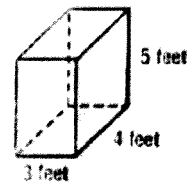
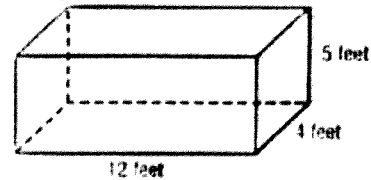
$V = 2659.58$

18. If Lisa's swimming pool dimensions are 10 feet long, 13 feet wide, and 5.5 feet deep, how much water will her pool hold?

- F. 130 cubic feet
 G. 445 square feet
 H. 513 square feet
 J. 715 cubic feet

$V = lwh$
 $= (13)(5.5)(10)$

19. The prisms shown below have the same height and width, but different lengths. How much greater is the surface area of the first prism?



- A. 192 square feet
 B. 180 square feet
 C. 162 square feet
 D. 81 square feet

20. A soup can consists of a curved surface and two flat bases. In the formula for surface area of a cylinder, which part represents the area of the soup can label?

$S.A. = 2\pi r^2 + 2\pi rh$

- F. rh
 G. $2\pi rh$
 H. πr^2
 J. $2\pi r^2$

21. How does the total **volume** of a cylinder change if you double the height of the cylinder? Choose the best answer.

- F. Stays the same
 G. Increases
 H. Decreases
 J. Doubles



$V = 3.14$



$V = 6.28$

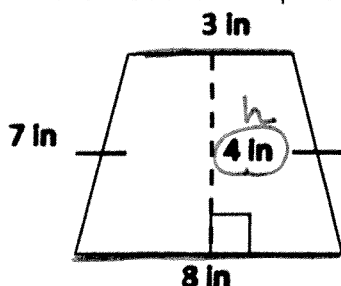
22. A Fish tank is filled with water. The tank is 7 feet long, 2 feet wide, and 10 feet high. Half of the water is then poured out. How much water is left in the tank?



$$V = 7 \cdot 2 \cdot 10 \\ = \frac{140}{2}$$

Water left = 70

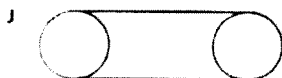
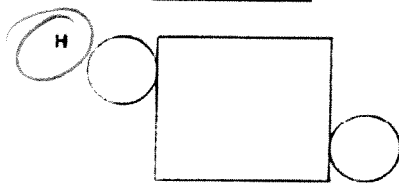
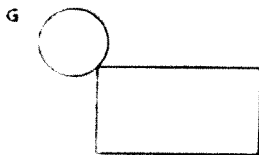
23. Find the area of the Trapezoid below



$$A = \frac{1}{2}h(b_1 + b_2) \\ \frac{1}{2} \cdot 4(3 + 8) \\ \frac{1}{2} \cdot 4 \cdot 11 =$$

22

24. Which of the following diagrams could be used to represent the surface area of a cylinder?



25. The volume of a rectangular prism is 480 feet³. What would be the volume of a rectangular prism if the width changed from 10 to 5 feet, but all of the other dimensions remained the same?

$$10 \rightarrow 5 \quad \frac{1}{2}$$

A) 48 feet³

B) 960 feet³

C) 240 feet³

D) 96 feet³

26. A shop is making cylindrical plastic cups. One cup is 15 inches tall and has a diameter of 6 inches. The cup will not have a top. What is the total square inches of plastic needed to make one cup?

$$SA = \pi r^2 + 2\pi rh$$

A) 310.86 in²

B) 282.6 in²

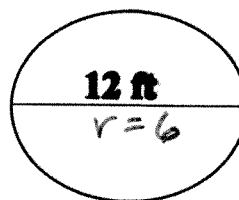
C) 339.12 in²

D) 678.24 in²

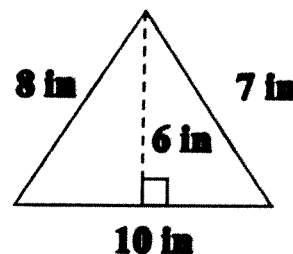
only covering one circle

$$28.26 + 282.6 = 310.86$$

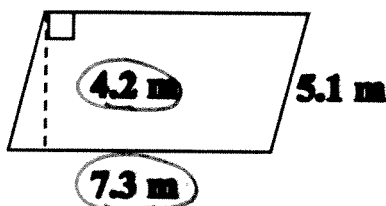
- For 27-30, find the area and perimeter(or circumference) for each shape.



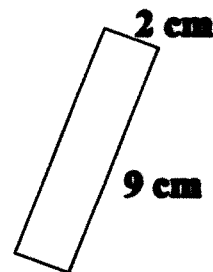
$$A = 113.04 \text{ ft}^2 \\ C = 37.68 \text{ ft}$$



$$A = 30 \text{ in}^2 \\ P = 25 \text{ in}$$



$$A = bh \\ A = 4.2 \times 7.3 = 30.66 \text{ m}^2 \\ P = 24.8 \text{ m}$$



$$A = 18 \text{ cm}^2 \\ P = 22 \text{ cm}$$